



# **STIC Search Report**

## **EIC 2100**

**STIC Database Tracking Number: 121324**

**TO: Tongoc Tran**  
**Location: 4Y03**  
**Art Unit : 2134**  
**Thursday, May 06, 2004**

**Case Serial Number: 09/586977**

**From: David Holloway**  
**Location: EIC 2100**  
**PK2-4B30**  
**Phone: 308-7794**

**david.holloway@uspto.gov**

### **Search Notes**

Dear Examiner Tran,

Attached please find your search results for above-referenced case.  
Please contact me if you have any questions or would like a re-focused search.

David



Set	Items	Description
S1	14693	(PLURAL? OR MULTIPL? OR SEVERAL? OR DIFFERENT? OR SECOND OR 2ND OR TWO OR 2) (2N) (CHIPCARD? OR SMARTCARD? OR ICCARD? OR CARD? ?)
S2	1011	(MUTUAL OR BIDIRECTION? OR PEER) (N) AUTHENTIC? OR KERBEROS
S3	117082	AUTHENTIC? OR VALIDIT? OR VERIFI?
S4	3092	SIM() CARD? OR SIMCARD? OR SUBSCRIBER() IDENTITY() MODULE?
S5	2253742	APPLICATION? OR PROGRAM? OR SUBPROGRAM? OR APP OR APPS OR - BANKING
S6	14808	(CHIP OR SMART OR STORED() VALUE OR IC) () CARD? OR CHIPCARD? OR MONDEX OR ICCARD? OR SMARTCARD?
S7	19	S1 (10N) S2
S8	5	S1 (12N) S3 (12N) S4 (12N) S5
S9	0	S2 (12N) S4 (12N) S5 (12N) S6
S10	26	S3 (12N) S4 (12N) S5 (12N) S6
S11	0	S2 (12N) S5 (12N) S4
S12	21	S2 (12N) S5 (12N) S6
S13	3743	(PAIR? OR COMBINE? OR LINKED OR JOINED OR VARIOUS) (2N) (CARD? ? OR CHIPCARD? OR SMARTCARD? OR ICCARD?)
S14	0	S13(12N) S2
S15	4	S13(S) S2
S16	80	S13(S) S3(S) (S4 OR S5)
S17	29	S16(S) S6
S18	15	S17 AND IC=(H04L? OR G06F?)
S19	30	(S10 OR S12) AND IC=(G06F? OR H04L?)
S20	64	S7 OR S8 OR S18 OR S19
S21	55	S20 AND IC=(H04L? OR G06F?)
S22	30	S21 NOT AD=19990605:20010605
S23	16	S22 NOT AD=20010605:20040509
S24	7	S7 NOT AD=19990504:20010605
S25	4	S24 NOT AD=20010605:20040509
S26	17	S25 OR S23
S27	17	IDPAT (sorted in duplicate/non-duplicate order)
S28	16	IDPAT (primary/non-duplicate records only)

File 348:EUROPEAN PATENTS 1978-2004/Apr W04

(c) 2004 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20040422,UT=20040415

(c) 2004 WIPO/Univentio

28/3,K/10 (Item 10 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2004 WIPO/Univentio. All rts. reserv.

00479472 \*\*Image available\*\*

**SYSTEM AND METHOD FOR FAST SMART CARD TRANSACTIONS**

**SYSTEME ET PROCEDE PERMETTANT DES TRANSACTIONS RAPIDES PAR CARTE A PUCE**

Patent Applicant/Assignee:

VISA INTERNATIONAL SERVICE ASSOCIATION,  
LEE Alson,  
SLOAN Jerry F,  
WENTZIEN Irwin H,

Inventor(s):

LEE Alson,  
SLOAN Jerry F,  
WENTZIEN Irwin H,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9910824 A1 19990304

Application: WO 98US17352 19980821 (PCT/WO US9817352)

Priority Application: US 97918559 19970822

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG

MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ

VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH

CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW

ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 11223

Main International Patent Class: G06F-017/60

International Patent Class: G06F-007/08

Fulltext Availability:

Detailed Description

Detailed Description

... received from step 412, to security card 64a (step 416).

Security card 64a, using the **card** information, generates **two**  
signatures (S2 and S3) which will be used to perform **mutual**  
**authentication** between security card 64a and consumer card 12. Those  
skilled in the art will recognize...

Set	Items	Description
S1	121657	(PLURAL? OR MULTIPL? OR SEVERAL? OR DIFFERENT? OR SECOND OR 2ND OR TWO OR 2) (2N) (CHIPCARD? OR SMARTCARD? OR ICCARD? OR CARD? ?)
S2	8268	(MUTUAL OR BIDIRECTION? OR PEER) (N) AUTHENTIC? OR KERBEROS
S3	1017329	AUTHENTIC? OR VALIDIT? OR VERIFI?
S4	9221	SIM() CARD? OR SIMCARD? OR SUBSCRIBER() IDENTITY() MODULE?
S5	19695382	APPLICATION? OR PROGRAM? OR SUBPROGRAM? OR APP OR APPS OR - BANKING
S6	153176	(CHIP OR SMART OR STORED() VALUE OR IC) () CARD? OR CHIPCARD? OR MONDEX OR ICCARD? OR SMARTCARD?
S7	24247	(PAIR? OR COMBINE? OR LINKED OR JOINED OR VARIOUS) (2N) (CARD? ? OR CHIPCARD? OR SMARTCARD? OR ICCARD?)
S8	24	S1(S) S2
S9	9	S7(S) S2
S10	0	S2(S) S4(S) S5
S11	45	S3(10N) S4(10N) S5(10N) S6
S12	78	S8 OR S9 OR S11
S13	44	RD (unique items)
S14	22	S13 NOT PY>1999
S15	16	S14 NOT PD=19990605:20010605
S16	16	S15 NOT PD=20010605:20040509
File	275:	Gale Group Computer DB(TM) 1983-2004/May 06 (c) 2004 The Gale Group
File	47:	Gale Group Magazine DB(TM) 1959-2004/May 06 (c) 2004 The Gale group
File	75:	TGG Management Contents(R) 86-2004/Apr W4 (c) 2004 The Gale Group
File	636:	Gale Group Newsletter DB(TM) 1987-2004/May 06 (c) 2004 The Gale Group
File	16:	Gale Group PROMT(R) 1990-2004/May 06 (c) 2004 The Gale Group
File	624:	McGraw-Hill Publications 1985-2004/May 05 (c) 2004 McGraw-Hill Co. Inc
File	484:	Periodical Abs Plustext 1986-2004/May W1 (c) 2004 ProQuest
File	613:	PR Newswire 1999-2004/May 05 (c) 2004 PR Newswire Association Inc
File	813:	PR Newswire 1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc
File	141:	Readers Guide 1983-2004/May (c) 2004 The HW Wilson Co
File	239:	Mathsci 1940-2004/Jun (c) 2004 American Mathematical Society
File	696:	DIALOG Telecom. Newsletters 1995-2004/May 05 (c) 2004 The Dialog Corp.
File	553:	Wilson Bus. Abs. FullText 1982-2004/May (c) 2004 The HW Wilson Co
File	621:	Gale Group New Prod. Annou. (R) 1985-2004/May 05 (c) 2004 The Gale Group
File	674:	Computer News Fulltext 1989-2004/Apr W4 (c) 2004 IDG Communications
File	88:	Gale Group Business A.R.T.S. 1976-2004/May 05 (c) 2004 The Gale Group
File	369:	New Scientist 1994-2004/Apr W4 (c) 2004 Reed Business Information Ltd.
File	160:	Gale Group PROMT(R) 1972-1989 (c) 1999 The Gale Group
File	635:	Business Dateline(R) 1985-2004/May 05 (c) 2004 ProQuest Info&Learning
File	15:	ABI/Inform(R) 1971-2004/May 05 (c) 2004 ProQuest Info&Learning
File	9:	Business & Industry(R) Jul/1994-2004/May 05 (c) 2004 The Gale Group
File	13:	BAMP 2004/Apr W4 (c) 2004 The Gale Group
File	810:	Business Wire 1986-1999/Feb 28 (c) 1999 Business Wire

File 610:Business Wire 1999-2004/May 05  
(c) 2004 Business Wire.  
File 647:CMP Computer Fulltext 1988-2004/Apr W4  
(c) 2004 CMP Media, LLC  
File 98:General Sci Abs/Full-Text 1984-2004/May  
(c) 2004 The HW Wilson Co.  
File 148:Gale Group Trade & Industry DB 1976-2004/May 06  
(c)2004 The Gale Group

16/3,K/7 (Item 5 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
(c) 2004 The Gale Group. All rts. reserv.

04999879 Supplier Number: 47342688 (USE FORMAT 7 FOR FULLTEXT)  
**Of Elvis and smart card sightings**  
Do, Alyxia  
Automatic I.D. News, pS20  
May, 1997  
Language: English Record Type: Fulltext  
Document Type: Magazine/Journal; Trade  
Word Count: 1023

... day. On the other hand, the GSM platform incurs minimal fraud losses due to a **subscriber identity module** (SIM), which is provided by a **smart card** as a means of user **authentication**.

In terms of an **application** taking advantage of a **smart card**'s increased data storage, multi-application system environments are excellent examples. Using a contactless smart card, the Transcard program in Sydney, Australia, integrates public transport, retail and banking applications in an open-system environment. While two individual RF/ID and magnetic stripe systems might...

16/3,K/14 (Item 1 from file: 9)  
DIALOG(R)File 9:Business & Industry(R)  
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2416065 Supplier Number: 02416065 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
Smart Cards: Java Gets Pats on Back From Card Businesses In Belgium and  
France  
(Proton World International, Bull Group to boosting the Java language of  
Sun-Microsystems regarding smart cards)  
American Banker, v 164, n 61, p 16  
March 31, 1999  
DOCUMENT TYPE: Newspaper ISSN: 0002-7561 (United States)  
LANGUAGE: English RECORD TYPE: Fulltext  
WORD COUNT: 1111

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

...s major chip card rivals, including Gemplus and Schlumberger, have also  
been developing remote commerce **applications** for GSM phones. The market  
for chip-based **SIM cards - subscriber identity modules** required to  
**authenticate** users of those phones-is one of the most active in the **smart  
card** industry.

The demonstration this month involved a Bull Rock'n Tree SIM card in  
one phone slot, and a Proton electronic purse card in the other. With a..



Set	Items	Description
S1	161	(PLURAL? OR MULTIPL? OR SEVERAL? OR DIFFERENT? OR SECOND OR 2ND OR TWO OR 2) (2N) (CHIPCARD? OR SMARTCARD? OR ICCARD? OR CARD? ?)
S2	169	(MUTUAL OR BIDIRECTION? OR PEER) (N) AUTHENTIC? OR KERBEROS
S3	3296	AUTHENTIC? OR VALIDIT? OR VERIFI?
S4	4	SIM() CARD? OR SIMCARD? OR SUBSCRIBER() IDENTITY() MODULE?
S5	59007	APPLICATION? OR PROGRAM? OR SUBPROGRAM? OR APP OR APPS OR - BANKING
S6	408	(CHIP OR SMART OR STORED() VALUE OR IC) () CARD? OR CHIPCARD? OR MONDEX OR ICCARD? OR SMARTCARD?
S7	34	(PAIR? OR COMBINE? OR LINKED OR JOINED OR VARIOUS) (2N) (CARD? ? OR CHIPCARD? OR SMARTCARD? OR ICCARD?)
S8	0	S1 AND S2
S9	0	S7 AND S2
S10	10	S2 AND S6
S11	2	S3 AND S4 AND S5
S12	4	S10 AND (S4 OR S5)
S13	6	S11 OR S12
S14	3	S13 NOT PY>1999
S15	3	S14 NOT PD>19990605

File 256:SoftBase:Reviews,Companies&Prods. 82-2004/Mar  
(c)2004 Info.Sources Inc



Set	Items	Description
S1	17510	(PLURAL? OR MULTIPL? OR SEVERAL? OR DIFFERENT? OR SECOND OR 2ND OR TWO OR 2) (2N) (CHIPCARD? OR SMARTCARD? OR ICCARD? OR CARD? ?)
S2	271	(MUTUAL OR BIDIRECTION? OR PEER) (N) AUTHENTIC? OR KERBEROS
S3	61019	AUTHENTIC? OR VALIDIT? OR VERIFI?
S4	1198	SIM() CARD? OR SIMCARD? OR SUBSCRIBER() IDENTITY() MODULE?
S5	1236987	APPLICATION? OR PROGRAM? OR SUBPROGRAM? OR APP OR APPS OR - BANKING
S6	30995	(CHIP OR SMART OR STORED() VALUE OR IC) () CARD? OR CHIPCARD? OR MONDEX OR ICCARD? OR SMARTCARD?
S7	14	S1 AND S2
S8	3	S1 AND S3 AND S4 AND S5
S9	0	S2 AND S4 AND S5 AND S6
S10	13	S3 AND S4 AND S5 AND S6
S11	0	S2 AND S5 AND S4
S12	20	S2 AND S5 AND S6
S13	45	S12 OR S10 OR S8 OR S7
S14	39	S13 AND IC=(H04L? OR G06F?)
S15	25	S14 NOT AD=19990605:20010605
S16	9	S15 NOT AD=20010605:20040509
S17	9	IDPAT (sorted in duplicate/non-duplicate order)
S18	9	IDPAT (primary/non-duplicate records only)
S19	11	S7 NOT S18
S20	2421	(PAIR? OR COMBINE? OR LINKED OR JOINED OR VARIOUS) (2N) (CARD? ? OR CHIPCARD? OR SMARTCARD? OR ICCARD?)
S21	2	S2 AND S20
S22	1	S21 NOT S7

File 347:JAPIQ Nov 1976-2003/Dec(Updated 040402)

(c) 2004 JPO & JAPIQ

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200427

(c) 2004 Thomson Derwent

19/5/5 (Item 5 from File: 347)  
DIALOG(R) File 347: JAPIO  
(c) 2004 JPO & JAPIO. All rts. reserv.

05650716 \*\*Image available\*\*  
PROCESSOR FOR PREPAID IC CARD

PUB. NO.: 09-265516 [JP 9265516 A]  
PUBLISHED: October 07, 1997 (19971007)  
INVENTOR(s): NISHIOKA MITSURU  
APPLICANT(s): TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 08-076201 [JP 9676201]  
FILED: March 29, 1996 (19960329)  
INTL CLASS: [6] G06K-017/00; A63F-007/02; G07F-007/08; G07F-007/12  
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units); 29.4  
(PRECISION INSTRUMENTS -- Business Machines); 30.2  
(MISCELLANEOUS GOODS -- Sports & Recreation)

#### ABSTRACT

PROBLEM TO BE SOLVED: To prevent a secret key, etc., from being leaked, or stolen and illegally used, or illegal use through an alteration of a subtracting machine, etc., by registering collation data from a **2nd IC card** in a handling means, and judging the propriety of a 1st IC card which has operation data enabling normal operation on the basis of the collation data.

SOLUTION: An operator inserts a registration card into equipment. When the inserted card is a registered and 'rewriting' is permitted by setting and data are not registered, the equipment side perform **mutual authentication** for confirming the propriety of the card. When the result is OK, an inputted password code is matched so as to confirm the propriety of the user, and then the registered data beings to be read for the 1st time after OK is obtained. When the password number is NG, data are not outputted even if a read of the data from the card is tried. The data which are thus read out are stored in the memory in the equipment and used for subsequent equipment operation. After it is confirmed that the data are normally recorded in the memory, the card is ejected.

Set	Items	Description
S1	17510	(PLURAL? OR MULTIPL? OR SEVERAL? OR DIFFERENT? OR SECOND OR 2ND OR TWO OR 2) (2N) (CHIPCARD? OR SMARTCARD? OR ICCARD? OR CARD? ?)
S2	271	(MUTUAL OR BIDIRECTION? OR PEER) (N) AUTHENTIC? OR KERBEROS
S3	61019	AUTHENTIC? OR VALIDIT? OR VERIFI?
S4	1198	SIM() CARD? OR SIMCARD? OR SUBSCRIBER() IDENTITY() MODULE?
S5	1236987	APPLICATION? OR PROGRAM? OR SUBPROGRAM? OR APP OR APPS OR - BANKING
S6	30995	(CHIP OR SMART OR STORED() VALUE OR IC) () CARD? OR CHIPCARD? OR MONDEX OR ICCARD? OR SMARTCARD?
S7	14	S1 AND S2
S8	3	S1 AND S3 AND S4 AND S5
S9	0	S2 AND S4 AND S5 AND S6
S10	13	S3 AND S4 AND S5 AND S6
S11	0	S2 AND S5 AND S4
S12	20	S2 AND S5 AND S6
S13	45	S12 OR S10 OR S8 OR S7
S14	39	S13 AND IC=(H04L? OR G06F?)
S15	25	S14 NOT AD=19990605:20010605
S16	9	S15 NOT AD=20010605:20040509
S17	9	IDPAT (sorted in duplicate/non-duplicate order)
S18	9	IDPAT (primary/non-duplicate records only)

File 347: JAPIO Nov 1976-2003/Dec (Updated 040402)  
(c) 2004 JPO & JAPIO

File 350: Derwent WPIX 1963-2004/UD, UM & UP=200427  
(c) 2004 Thomson Derwent

18/5/2 (Item 2 from File: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

011215591 \*\*Image available\*\*  
WPI Acc No: 1997-193516/199718  
XRPX Acc No: N97-159806

Mutual authentication of identified chip cards with computer  
system - involves exchange of two random numbers and use of secret OFFSET  
prior to reciprocal acknowledgement of agreed results of encryption

Patent Assignee: INFORMATIKZENTRUM SPARKASSENORGANISATION (INFO-N)

Inventor: LOEHMANN E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19523466	C1	19970403	DE 1023466	A	19950628	199718 B

Priority Applications (No Type Date): DE 1023466 A 19950628

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
DE 19523466	C1	9	H04L-009/32	

Abstract (Basic): DE 19523466 C

The **chip card** (CC) transmits an **application** (LOG) to the system (S), which returns a random number (RNS) for use with a key (K) in computing a result of encryption (V(K,RNS)). The **chip card** also determines a secret number (OFFSET) for later use and computes another result (V(K,OFFSET)). Both results are transmitted with the identifier (ID) to the system, which derives the key by an established method (F1). The first encryption result is also computed and compared with that from the **chip card**. On receipt of an acknowledgment (OK) the **chip card** sends another random number (RNC), to which the system adds the OFFSET. If the **chip card** agrees with the result, the **application** is authorised.

ADVANTAGE - Simulation of system with fraudulent intent is prevented by multiple use of common identifier.

Dwg.1/4

Title Terms: MUTUAL; AUTHENTICITY; IDENTIFY; CHIP; CARD; COMPUTER; SYSTEM;  
EXCHANGE; TWO; RANDOM; NUMBER; SECRET; OFFSET; PRIOR; RECIPROCAL;  
ACKNOWLEDGE; AGREE; RESULT; ENCRYPTION

Derwent Class: T04; W01

International Patent Class (Main): H04L-009/32

International Patent Class (Additional): G06F-012/14 ; G07C-009/00

File Segment: EPI

18/5/6 (Item 6 from File: 350)  
DIALOG(R) File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

007697860 \*\*Image available\*\*  
WPI Acc No: 1988-331792/198847  
XRPX Acc No: N88-251475

**Secure and flexible loading system for smart card - has execute only  
program which mutually authenticates loading computer and loads  
application program**

Patent Assignee: GENERAL ELECTRIC CO PLC (ENGE )

Inventor: EDMONDS R; STEINER A F

Number of Countries: 015 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 292248	A	19881123	EP 88304475	A	19880518	198847 B
GB 2204973	A	19881123	GB 8711744	A	19870519	198847
AU 8816434	A	19881124				198903
NO 8802140	A	19881212				198904
ZA 8803412	A	19890222				198914

Priority Applications (No Type Date): GB 8711744 A 19870519

Cited Patents: 1.Jnl.Ref; A3...9044; EP 159651; EP 193920; EP 198642; EP  
217654; EP 89876; GB 2087606; GB 2168831; JP 61211788; No-SR.Pub; US  
3996449; US 4663707; WO 8707060; WO 8707061

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 292248	A	E	6		

Designated States (Regional): AT BE CH DE ES FR GB IT LI LU NL SE

Abstract (Basic): EP 292248 A

The loading system is for the **application program** onto a **smart card** in which the card is coupled to a loading computer which supplies the **program** after **mutual authentication** has taken place. The authenticating and loading **program** is written during manufacture and is execute only.

The **program** can be kept till it is required to change. Alternatively the first loading can be followed by a **program** change, so that the **program** cannot be changed once written. Thus flexibility and security can be traded. The system can have an E2 PROM for the read/write regions or it can be a battery-backed ROM.

USE/ADVANTAGE - Esp. **smart card** where flexibility is required. Enables various **application programs** to be written on basic manufactured card and, if necessary, changed.

Title Terms: SECURE; FLEXIBLE; LOAD; SYSTEM; SMART; CARD; EXECUTE; **PROGRAM**  
; MUTUAL; LOAD; COMPUTER; LOAD; APPLY; **PROGRAM**

Derwent Class: T01; T04

International Patent Class (Additional): G06F-003/06 ; G06F-009/06 ;  
G07F-007/10; G11C-007/00; G11C-017/00

File Segment: EPI

18/5/7 (Item 7 from File: 347)  
DIALOG(R)File 347:JAPIO  
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06690731 \*\*Image available\*\*  
COMMUNICATION EQUIPMENT AND AUTOMATIC TICKET CHECKING MACHINE

PUB. NO.: 2000-276561 [JP 2000276561 A]  
PUBLISHED: October 06, 2000 (20001006)  
INVENTOR(s): NAGAE DAISUKE  
NAKAMICHI YUJI  
APPLICANT(s): OMRON CORP  
APPL. NO.: 11-077521 [JP 9977521]  
FILED: March 23, 1999 (19990323)  
INTL CLASS: G06K-017/00; G07B-015/00; H04B-001/59; H04L-012/28

#### ABSTRACT

PROBLEM TO BE SOLVED: To make obtainable communications with high reliability in spite of utilizing plural sheets of media by providing a reading means which reads the information on the communication media when a polling connection is secured between both communication media for the **mutual authentication** and a communication means which tries the polling connection again after the **mutual authentication**.

SOLUTION: A CUP gives a re-polling function to communication equipment 26 to permit the simultaneous use of plural tickets so as to enable a single person to combine **plural communication cards** 19 when these cards are used. Owing to the re-polling function, the information on the cards 19 are read for the **mutual authentication** when the polling connection is secured between both cards 19 for the **mutual authentication** in a non-contact ticket examination application mode, and the polling connection is tried again. Thereby, the connection of communication can be established with the card 19 that was not accepted at first by trying again the polling connection even when the number of accepted authenticated cards 19 is smaller than the number of cards 19 which were used at an initial polling stage.

COPYRIGHT: (C)2000, JPO

Set	Items	Description
S1	760	(TWO OR BOTH OR DUPLICATE OR TWIN OR PAIR) (2N) ((SMART OR C-HIP OR IC) ()CARD OR SMARTCARD? OR ICCARD? OR CHIPCARD? OR MON-DEX OR (SMART OR CHIP OR IC) ()CARD?)
S2	1160974	MUTUAL? OR RECIPROCA? OR COMMON? OR COMMUNAL? OR CONNECT? - OR CONJOINT? OR JOINT?
S3	929751	AUTHENTICAT? OR CERTIFY? OR VERIF? OR DETERMIN? OR RECOGNI? OR JUDGE? OR VALIDAT? OR IDENTIF?
S4	613674	EACH (1N)OTHER? OR ONE(1N)ANOTHER?
S5	234967	(MOBILE OR PORTABLE OR CELLULAR OR CELL OR WIRELESS) (2W) (D-EVICE? OR CLIENT? OR NODE? OR TELECOMMUNICATION? OR COMPUTER? OR PHONE? OR TELEPHONE? OR TERMINAL) OR CELLPHONE? OR CELL()P-HONE? OR WIRELESS OR WIRE()LESS OR RADIO?
S6	12	S1 (S) S2 (S) S3 (S) S4
S7	1	S5 (S) S6
S8	6	S1 (S) S2 (S) S3 (S) S5
S9	68	S1 (S) S2 (S) S3
S10	6	S9 (S) S5
S11	16	S6 OR S7 OR S8 OR S10

File 348:EUROPEAN PATENTS 1978-2003/Oct W03

(c) 2003 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20031023,UT=20031016

(c) 2003 WIPO/Univentio

11/5,K/5 (Item 5 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00945654

**Method and apparatus for integrated circuit card**  
**Verfahren und Gerat fur eine Chipkarte**  
**Methode et appareil pour une carte a puce**

**PATENT ASSIGNEE:**

INFO TELECOM, (1418712), Rue de la Foret, B.P. 9, F-67550 Vendenheim,  
(FR), (Applicant designated States: all)

**INVENTOR:**

Copeland, Jeffrey P., 358 Quinapoxet Street,, Jefferson, Massachusetts  
05122, (US)  
Vandenengel, Gerald W., 27 Millbury Street, Grafton, Massachusetts 01519,  
(US)

Chau, Paul W., 26 Travis Road, Natick, Massachusetts 01760, (US)

**LEGAL REPRESENTATIVE:**

Casalonga, Axel et al (14511), BUREAU D.A. CASALONGA - JOSSE  
Morassistrasse 8, 80469 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 858046 A2 980812 (Basic)  
EP 858046 A3 990908

APPLICATION (CC, No, Date): EP 98300877 980206;

PRIORITY (CC, No, Date): US 37696 P 970207

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;  
MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: G06K-007/00

**ABSTRACT EP 858046 A2**

A portable integrated circuit card reader system provides for enhanced functionality and interconnectability with external devices. A printed circuit board arrangement includes a housing having first and second parallel planar surfaces and a printed circuit board disposed in the housing, including a substrate having a thickness of about 0.020 in. (0.5mm), and including a portion which engages an external connector through an opening in the housing. The printed circuit board is held by the housing at a first position, parallel to and between the planar surfaces of the housing, at the opening in the housing, and is held at a second position different from the first position, parallel to the planar surfaces of the housing and adjacent to the first parallel planar surface of the housing, the printed circuit board having a flex region between the first position and the second position. An interface module includes a housing, serial transceiver circuitry disposed in the housing, a first input/output connector which connects to an input/output port of the portable IC card reader, a cable coupling the connector to the transceiver circuitry, and a second input/output port which couples the serial interface module transceiver to an external device. A method of operating the portable IC card reading device includes reading a stored value from an IC card when the IC card is inserted in the device, receiving user input corresponding to an amount of a planned purchase, and automatically calculating and displaying an expected balance after the planned purchase. Further, after making the planned purchase with the IC card, a stored value from the IC card is read when the IC card is inserted in the device, and the value read is displayed.

ABSTRACT WORD COUNT: 282

**NOTE:**

Figure number on first page: 1

**LEGAL STATUS (Type, Pub Date, Kind, Text):**

Withdrawal: 001129 A2 Date application deemed withdrawn: 20000309

Application: 980812 A2 Published application (Alwith Search Report  
;A2without Search Report)

\*Assignee: 981028 A2 Applicant (transfer of rights) (change): INFO  
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BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL  
;PT;SE)  
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AT;BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL  
;PT;SE)

Change: 990414 A2 Representative (change)  
Search Report: 990908 A3 Separate publication of the search report  
LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9833	2031
SPEC A	(English)	9833	9619
Total word count - document A			11650
Total word count - document B			0
Total word count - documents A + B			11650

...SPECIFICATION status and error information request and response, as well  
as power management functions, are also provided.

The **connected** mode of operation of the device includes **two** methods  
of **IC card** data transfer: pass-through and non-pass-through. In  
pass-through, the **portable reader device** 101 serves as a conduit for  
the data to flow between the IC card and an external source. In the  
second transfer method, non-pass-through, the **portable reader device**  
101 will intercept the command and response data, and perform some  
operations thereon, e.g., data **validation** and/or error handling, for  
example.

In the ISO-7816 protocol, each data block consists of, for...

11/5,K/6 (Item 6 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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00553417

**Method for identification and exchange of encryption keys**  
**Verfahren zum Identifizieren und Austauschen von kryptographischen**  
**Schlüsseln**

**Methode d'identification et d'echange de cles de chiffrement**

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 538216 A1 930421 (Basic)  
EP 538216 B1 970319

APPLICATION (CC, No, Date): EP 92850205 920902;

PRIORITY (CC, No, Date): SE 912641 910912

DESIGNATED STATES: BE; DE; ES; FR; GB; LU; NL

INTERNATIONAL PATENT CLASS: H04M-001/68; H04L-009/32;

CITED PATENTS (EP A): EP 266044 A; EP 266044 A; US 4694492 A

CITED REFERENCES (EP A):

SPEECH TECHNOLOGY vol. 5, no. 2, 1990, NEW YORK pages 66 - 69 , XP149383

MONOT ET AL 'THE FRENCH SECURE TELEPHONE UNIT'

PATENT ABSTRACTS OF JAPAN vol. 12, no. 407 (E-675)27 October 1988

PATENT ABSTRACTS OF JAPAN vol. 13, no. 570 (P-977)18 December 1989

PATENT ABSTRACTS OF JAPAN vol. 13, no. 558 (E-858)12 December 1989;

ABSTRACT EP 538216 A1

The invention relates to a means for identification and exchange of  
encryption keys between communicating apparatuses for encrypted

transmissions. The means comprises a card reader for smart cards connected to the communication apparatus which may be a telecommunication apparatus, e.g. of telephone or facsimile type. The reader can communicate with another reader at a called telecommunication apparatus. For identification and exchange of encryption keys the required calculations are performed by the reader or the smart card using data stored on the smart card in a protected field with limited access. The means enable intercommunication between products of different makes owing to a standard identification procedure and exchange of encryption keys.  
(see image in original document)

ABSTRACT WORD COUNT: 117

LEGAL STATUS (Type, Pub Date, Kind, Text):

Application: 930421 A1 Published application (A1with Search Report  
;A2without Search Report)  
Examination: 930707 A1 Date of filing of request for examination:  
930510  
Examination: 951206 A1 Date of despatch of first examination report:  
951019  
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Grant: 970319 B1 Granted patent

Oppn None: 980311 B1 No opposition filed

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	222
SPEC A	(English)	EPABF1	4216
Total word count - document A			4438
Total word count - document B			0
Total word count - documents A + B			4438

...SPECIFICATION THE PREFERRED EMBODIMENTS OF THE INVENTION

In the figure the means according to the invention is shown **connected** in a network, e.g. a telecommunication system. Between the external apparatuses exist encrypted traffic. The external apparatuses may be telephone or facsimile apparatuses. For **identification** and exchange of encryption keys two card readers are used communicating with **each other**. As a basis for the **identification** **two smart cards** are used which means that the **identification** is performed by the card (and its owner) and that the reader as such does not contain...

11/5,K/7 (Item 7 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00206852

IC card.

Chipkarte.

Carte a circuit integre.

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...insertion slot 23, keyboard 24, display panel 25, and printer section 26. The PMK code which has **been** written into IC card 11, and the PMK code input from keyboard 24 are compared for coincidence, and only if **both codes** coincide with each other, is the account number PAN written into IC card 11, and the input...

11/5,K/8 (Item 8 from file: 348)  
DIALOG(R) File 348:EUROPEAN PATENTS  
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00205883

**Ic card system employing remote pin entry card.**

**Chipkartensystem das eine Karte zur entfernten Eingabe der persönlichen Identifizierungsnummer verwendet.**

**Systeme a carte a circuit integre utilisant une carte d'entree a distance du numero d'identification personnel.**

PATENT ASSIGNEE:

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INVENTOR:

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PATENT (CC, No, Kind, Date): EP 211369 A2 870225 (Basic)

EP 211369 A3 880831

EP 211369 B1 911016

APPLICATION (CC, No, Date): EP 86110370 860728;

PRIORITY (CC, No, Date): JP 85167495 850731

DESIGNATED STATES: DE; FR; GB

INTERNATIONAL PATENT CLASS: G07F-007/10;

CITED PATENTS (EP A): US 4277837 A; EP 49650 A; GB 2151987 A; FR 2526977 A; FR 2536928 A

CITED REFERENCES (EP A):

INTERNATIONAL CONFERENCE ON SECURE COMMUNICATION SYSTEMS, 22nd-23rd February 1984, pages 1-4, The Institution of Electrical Engineers, London, GB; D.W. DAVIES: "Smart cards, digital signatures and negotiable documents";

ABSTRACT EP 211369 A2

In an IC (integrated circuit) system (100), a first IC card (11) owned by a cardholder and a second IC card (21) owned by a person other than the cardholder are employed. The first IC card (11) is a normal IC card having a memory (39) for previously storing a personal identification number (PIN). The first IC card (11) includes a comparator (40). The second IC card (21) is a remote PIN entry card having a keyboard (26) for entering the PIN by a cardholder. After the PIN has been entered by the cardholder in the remote PIN entry card (21), this card (21) is loaded by the person into a card terminal (12). Then, the PIN entered in the remote PIN entry card (21) is transferred into the card terminal (12), and thereafter the PIN of the card terminal (12) is transferred into the IC card (11) so as to identify whether the cardholder is an authorized cardholder or not by comparing in the comparator (40) both the PIN's with each other.

ABSTRACT WORD COUNT: 177

LEGAL STATUS (Type, Pub Date, Kind, Text):

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Search Report: 880831 A3 Separate publication of the European or International search report

Examination: 890329 A2 Date of filing of request for examination: 890125

Examination: 890719 A2 Date of despatch of first examination report:

the vehicle to be able to ascertain or read out...

...of data, like for example the number of revolutions and/or the odometer reading. ) (A number of **connections** to) other equipment in the vehicle with which can be communicated and/or cooperated, like for example a cruise control. 5) (A number of **connections** to) equipment for communication with users, like for example a display and/or a speaker for supplying...

...e.g. a microphone for receiving information from users (voice-input). 6) A number of (preferably standardized) **connection** points (points of junction, including connectors), like for example magnetic or chip card readers, for making a **connection** to loose, to be **connected** equipment. like for example a by or on behalf of the payer to be brought in consumption pass and/or user card, which for example encompass a meter reading and/or an **identification** device. 1 0 7) A (preferably standardized and central) **connection** point (connector) for making a correct **mutual connection**

tl(

between all equipmen

Figure 1 gives a schematic illustration of a possible situation. In which cases...

...charges due to the use of the vehicle@'. (Think for example of traffic pricing and traf20 This **connection** point may be used also for the **connection** of (part of) the equipment to a power supply. As the need for a power supply is...NLOO/00161 on which we here do not want to digress further. The in figure I rendered ( **connection** to) other equipment may concern, for example, the cruise control of the vehicle. The transmitter or the...

...that for output usually at least a speaker will be present as well. In relation to the **connection** points (connectors) for the benefit of to be **connected** equipment we remark that a (at least in case of certain variations of the TIP-system) supervising...

...like for example putting digital signatures and/or supervising the possible agent, may be on a loose **chipcard**. In short, **both** processors just mentioned thus may be **connected** to other equipment by means of a chipcard reader. It is most plausible that at least the...

...figure 1 the two processors for the agent and for (the holder of) the vehicle, respectively, are **connected** to **each other** via the central **connection** point and the card reader is intended for a user card. A user card is (primarily) an...

...costs of) the use of a vehicle. So, it may primarily be a device (aid) for the **identification** of the paver. A consumption pass has (primarily) as task to keep a meter reading for the...

11/5,K/13 (Item 4 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00579195 \*\*Image available\*\*

SMART CARD AND READER/WRITER

CARTE A PUCE ET UN DISPOSITIF DE LECTURE/ECRITURE

Patent Applicant/Assignee:

QDOS MEDIA LIMITED,

MONTEITH John,

JAMES Barry,

Inventor(s):

MONTEITH John,

JAMES Barry,

Patent and Priority Information (Country, Number, Date):

Patent: WO 200042568 A1 20000720 (WO 0042568)

Application: 2000GB109 20000117 (PCT/WO GB 000109)

Priority Application: GB 99891 19990116; GB 9920922 19990903

Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK  
DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR  
LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ  
TM TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM  
AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL  
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Main International Patent Class: G06K-019/07

International Patent Class: G06K-007/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 12327

#### English Abstract

A smart card (101) comprising: a sheet of supporting material (102); and electrical contact means (103) provided on said sheet of supporting material and adapted to provide an electrical contact with a smart card reader in use; one or more integrated circuits supported by said sheet; and interface means comprising a first serial data interface (104) and at least one second data interface (105) which may be serial or parallel arranged such that in use, data stored in said integrated circuits may be accessed via said parallel data interface. Relatively large amounts of data are stored on an improved smart card and by using two data interfaces data is communicated to and from the improved smart card quickly. A reader/writer for use with the improved smart card is described. An adaptor card may be inserted into the reader/writer to enable a host device in which the reader/writer is incorporated to be connected to other devices.

#### French Abstract

L'invention concerne une carte (101) a puce comprenant : une feuille d'un materiau (102) de support ; un element (103) de contact electrique, dispose sur ladite feuille de materiau de support, concu pour permettre le contact electrique avec un lecteur de carte a puce lors de l'utilisation ; un ou plusieurs circuits integres reposant sur la feuille ; et des organes d'interface comprenant une premiere interface (104) de donnees serie et au moins une seconde interface (105) de donnees, serie ou parallele, disposees de sorte que, lors de l'utilisation, les donnees memorisees dans les circuits integres soient accessibles via l'interface de donnees parallele. Cette carte a puce amelioree permet de memoriser des quantites relativement grandes de donnees, et d'echanger rapidement ces donnees grace aux deux interfaces de donnees. L'invention concerne egalement un dispositif de lecture/ecriture destine a etre utilise avec la carte a puce amelioree. Une carte adaptateur peut etre inseree dans le dispositif de lecture/ecriture de maniere a permettre a la connexion d'un dispositif hote integre dans le dispositif de lecture/ecriture avec d'autres dispositifs.

Fulltext Availability:

Claims

#### Claim

... personal organiser to be connected, via the adaptor and reader/writer, to another device, such as a **mobile telephone** or a personal computer. Different types of adaptor cards would be used to connect the device hosting...

...data interfaces on the support surface 102 around serial data interface 104. Figure 2 shows example electrical **connections** within each contact area 104, 105 in more detail. Each contact area 104, 105 comprises a ground **connection** a, b, and these are **connected** to one another. For this reason it is advantageous to position the contact areas 104, 105 next...total, and occupies an area of double the width of the normal ISO 7816 interface. A ground **connection** at pin 5 (see Figure 2) of the

serial data interface extended across via the centre of the serial data interface contact area 104 to the **connection** at the centre of the parallel data interface contact area 105 distinguishes the improved smart card, from a normal ISO 7816 interface. This does not affect the integrity of the ISO 7816 interface **connections**. The new eight pins (9 to 16 in Figure 2) comprising the parallel data interface are **connected** to the data bus of memory circuits (integrated circuits) internal to the Smart Card. Thus, once data...

...byte (eight bits) at a time compared to the one bit at a time over the serial **connection** at pin 7 (see figure 2) of the normal ISO 7816 interface. The data transfer in both...

...9 through to 16, and correspond to data bits 1 through to 8 of the data bus **connections** (i.e. an eight-bit wide data bus). The new pins of the parallel data interface are...

...First Part. (See Figure 2).  
The serial data interface can be arranged to provide a means of **authentication**. That is, on use of the improved smart card, a smart card reader first communicates with the...

...the serial data interface and checks security details stored in that smart card (for example a personal **identification** number). Then, once **authentication** is successfully completed, data on the smart card can be accessed via the parallel data interface. Similarly...

...minimum contact pad proportions and dimensions of which conform to the detail dimensions of the contact pin **connections** of ISO7816, but are positioned adjacent to the existing interface serial interface 104. The serial and parallel data interfaces 104, 105 comprise the interface means 103. Figure 2 shows the electrical **connections** of the inter-face means 103. Pins 1 to 8 conform to the ISO7816 standard and have...

...The contact pad areas 'a' and V represent the -minimum areas which must be available as Iground ' **connections** to the centres of interfaces 104, 105. Thus pin 5 of the existing ISO7816 interface is electrically and mechanically **connected** to pins 'a' and V of interfaces 104 and 105. The interface reader (not shown) makes an external 'ground' **connection** at pin 5, as in a conventional Smart Card reader. Detection of a 'ground' at pin 'a...smart card 717 bearing recorded data, and when in the slot 716 the smart card 717 makes **connection** with contacts provided on the PCB and hence **connection** to the interface means 715 for reading of the data

...a physical newspaper, or each week or month instead of buying a physical magazine. Alternatively, an internet **connection** may be used to download the data to the smart card. interface means with a first serial

...

...configured in a similar way as that for the ISO7816 port. Table 2 below lists the electrical **connections** that would be used for the 16 pins in the case that both ports are serial. Table I below lists these same **connections** in the case that one serial and one parallel port are used. The type of memory incorporated within the improved smart card **determines** the configuration of the port. The interface electronics is required to **validate** data transfers and to communicate with the appropriate pins for the memory type being used. It is...

...this, as Smart chips do not contain large amounts of memory. However, with the growing use of **Mobile Phone** - technology in applications such as remote collection and storage of electronic mail (e-mails), and for electronic transactions (ecommerce), there is a need for increased memory in **Mobile Telephones**. Some manufacturers are starting to include two SIMs (Subscriber Identity Modules) in their telephones. While this configuration...

...reader/writer in exactly the same manner as that of conventional small telephone SIMs. This means that **Mobile Telephones** are instantly

equipped with large, removable, and secure, memory means, enabling their use for many more applications...

...the housing. Similarly two electrical contacts 1005 are provided for contacting the 0 volt or ground plane **connection** regions on the improved smart card. In figure 9, reference numeral 1006 is used to refer to...

...accesses a memory chip in the smart card. The smart card reader/writer further comprises an electrical **connection** 1008 from the ISO port interface 1023 to a central processing unit 1010. There is also an electrical **connection** 1009 from the additional port interface 1024 to the same central processing unit 1010. The central processing...

...flow of data between the card reader/writer and devices to which the card/reader writer is **connected**. The smart card reader/writer is typically incorporated into another device such as a personal organiser, **mobile telephone**, personal **computer** or other apparatus. This other device is termed a "host" and an electrical **connection** 1011 is provided between the central processing unit 1010 and a port on that host...

...example, if the host is an electronic book, data read from the smart card is passed via **connection** 1009, central processing unit 1010, and **connection** 1011 to the host device.  
Figure 11 shows an adaptor card for use with the reader/writer...

...it may be The function of the adaptor card is to allow the host device to be **connected** to other devices via the reader/writer. For example, if the host device is a personal organiser...

...a reader/writer then an adaptor card can be used to allow another device such as a **mobile telephone** to be **connected** to the host device. Thus a connector 1014 is provided on the adaptor card for **connection** to another device.

This connector 1014 may be a PCMCIA connector, a USB connector, an RS232 connector...

...This comprises a contact film 1022, an ISO7816 interface 1020 and an additional port 1021. Internal electrical **connections** 1019, 1018 are provided from a controller integrated circuit 1016 to the ISO interface 1020 and to...

...required by each of the host device and the other device to which the adaptor card is **connected**. The controller integrated circuit 1016 is also **connected** to the connector 1014 for **connecting** the adaptor card to another device.

More details about the reader/...or an Improved Smart card is present. This may be achieved before the main sixteen interface pin **connections** are powered up and any data is transferred, by checking for a 'ground' **connection** at each of said two further pins. A 'ground' **connection** at the centre of the standard ISO port only, confirms a standard Smart card has been inserted into the reader/writer. A 'ground' **connection** at both the centre of the standard

ISO port, and the centre of the inserted into the...multiple lines, or subscribe to ISDN lines of greater bandwidth in order to decrease data transfer times. **Mobile telephones** are similarly currently allotted too small a bandwidth for fast data transfer, as the allocated bandwidth was...

...is already made of existing 'Smart' cards in the Satellite receiver set-top boxes to ensure only **validated** customers are able to decrypt paid-for services. The 16 decryption codes are altered on a regular basis, ensuring that users without a **validated** 'Smart' card will not be able to decrypt further programmes. The Improved Smart Card and associated reader...

...the secure storage of all the decryption codes of all subscribed

channels on one subscriber card, with **validation** able to be enacted via land-lines and updating of information via satellite. Further to this, it will allow the fast, secure transfer of sensitive data, such as financial details, with the **validation** 'private key' for dual-key encryption methods, or similar methods, embedded within the Smart chip.

The large...of security, the Improved Smart Card may be in a form where physical access to the electrical **connections** of the memory embedded under the extra port is prevented. This is achieved by tri-stating, (i.e. switching to a high-impedance state), the **connections** to the card contact pads on the extra port. The **connection** is electrically made by the microprocessor in the 'Smart' chip, embedded under the ISO port, only after transaction **validation** by said 'Smart' chip. For applications requiring less security, it is convenient to utilise less expensive integrated circuits that do not have internal **connections** between memory and 'Smart' chip within the card. In this case, data encryption techniques are used to further protect the data integrity, as previously described, once the interface has **validated** the transaction and unlocked the data transfer from the memory. For all required degrees of security, the interface electronics must **determine** the required configuration of the extra port by interrogation of the 'Smart' chip in the ISO port...

...electronics is able to configure the appropriate pins on the extra port and establish the correct electrical **connections** to commence communications across said extra port, for both parallel and serial configurations of said extra port...

...Music.

This technique of using header information is also used by the Improved Smart reader/writer to **determine** the type of memory contained on the Improved Smart Card, and hence to configure the interface electronics...

...to the Improved Smart Card interface. Power for the adaptor card is derived from the reader/writer **connections**, which normally power the Improved Smart Card itself, when said adaptor card is inserted into the reader...or conform to the IEEE488 instrumentation bus standard. Conveniently, with the appropriate dedicated conversion Integrated Circuit and **connections**, any serial or parallel type of data from any peripheral device or media type, is capable of...

...the physical centre of the additional eight-pin interface that constitutes the 'Improved' part of said Improved **Smart Card**. An additional **pair** of electrical contacts arranged in the form of a switch. Said switch contacts are normally 'open', i...

...Unit comprising, conveniently, electronic circuitry to arbitrate and control the flow of data through said Interface. Electrical **connection** from the ISO7816 specified physical eight-pin contact pad to said Central Processing Unit. Electrical **connection** from the Improved Smart Card physical eight-pin contact pad to said Central Processing Unit. \* Electrical **connection** from said Central Processing Unit to, conveniently, a parallel port, or USB (Universal Serial Bus) port **connection** of a Personal Computer, or any other means of writing/reading to said card. The improved smart...

...personal fitness data, passport data, driving licence data, library data, and machine control data.

Table 1

Electrical **Connections** illustrated in Figure 2 for parallel conflation. The Electrical **connections** are: Pin 1 - Vcc - typically +5 Volts. Pin 2 - RST -Reset. Pin 3 - CLK - Data Clock. Pin 4 - NC - Not **Connected** - Reserved for future use. Pin 5 - GND - Ground - 0 Volts. Pin 6 - Vpp - Programming Voltage. Pin 7 - I /O - Input / Output. Pin 8 - NC - Not **Connected** - Reserved for future use. Pin 9 - Data Bit 1 - Parallel Data - Least Significant Bit - LSB. Pin 1...

...Pin 16 - Data Bit 8 - Parallel Data - Most Significant Bit - MSB. Pin



'a'- Ground - Electrically and Mechanically **Connected** to Pin 5. Pin 'b'  
- Ground - Electrically and Mechanically **Connected** to Pin 5.  
Electrical **connections** for serial configuraiton  
Pin 1 - Vcc - typically +5 Volts. Pin 2 - RST -Reset. Pin 3 - CLK - Data  
...  
...1/0 - Input / Output.  
Pin 16 - NC - Reserved for future use  
Pin 'a' - Ground - Electrically and Mechanically **Connected** to Pin 5.  
Pin'b'- Ground - Electrically and Mechanically **Connected** to Pin 5.  
Table 3  
Examples of mapping different serial protocols (extra

11/5,K/14 (Item 5 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00512810 \*\*Image available\*\*

**METHOD AND APPARATUS FOR THE MANAGEMENT OF DATA FILES**

**PROCEDE ET APPAREIL DE GESTION DE FICHIERS DE DONNEES**

Patent Applicant/Assignee:

BESSETTE Luc,

Inventor(s):

BESSETTE Luc,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9944162 A1 19990902

Application: WO 98CA1198 19981222 (PCT/WO CA9801198)

Priority Application: CA 2231019 19980224; CA 2233794 19980401; CA  
2239015 19980529

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES

FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD

MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US

UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE

CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN

GW ML MR NE SN TD TG

Main International Patent Class: G06F-017/60

Publication Language: French

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 12685

**English Abstract**

The present invention provides a network system for storage of medical records. The records are stored in a database on a server. Each record includes two main parts, namely a collection of data elements containing information of medical nature for a certain individual, and a plurality of pointers providing addresses or remote locations where reside other medical data for that particular individual. Each record also includes a data element indicative of the basic type of medical data found at the location pointed to by a particular pointer. This arrangement permits a client workstation to download the record along with the set of pointers which link the client to the remotely stored files. The identification of the basic type of information that each pointer points to allows the physician to select the ones of interest and thus avoids downloading massive amounts of data where only part of that data is needed at that time. In addition, this record structure allows statistical queries to be effected without the necessity of accessing the data behind the pointers. For instance, a query can be built based on keys, one of which is the type of data that a pointer points to. The query can thus be performed solely on the basis of the pointers and the remaining information held in the record.

**French Abstract**

La presente invention concerne un systeme de reseau destine au stockage de dossiers medicaux. Les dossiers sont stockes dans une base de donnees sur un serveur. Chaque dossier comprend deux parties principales, a

savoir un ensemble d'elements de donnees contenant des informations de nature medicale sur un certain individu, ainsi qu'une pluralite de pointeurs fournissant des adresses ou des emplacements distants ou resident d'autres donnees medicales pour cet individu particulier. Chaque dossier comprend egalement un element de donnees indicatif du type de base de donnees medicales rencontrees a l'emplacement indique par un pointeur particulier. Cet agencement permet a un poste de travail d'un client de telecharger le dossier avec l'ensemble de pointeurs reliant le client aux fichiers stockes a distance. L'identification du type de base d'informations que chaque pointeur indique pour permettre au medecin de selectionner celles presentant un interet, evite ainsi de telecharger des quantites importantes de donnees dans lesquelles seule une partie de ces donnees est necessaire a ce moment. De plus, cette structure de dossier permet d'effectuer des recherches statistiques sans qu'il faille acceder aux donnees se trouvant derriere les pointeurs. Par exemple, une demande peut etre elaboree sur la base de cles dont une est le type de donnees qu'indique un pointeur. La demande peut ainsi etre effectee uniquement sur la base des pointeurs et les informations restantes etant conservees dans le dossier.

Fulltext Availability:  
Detailed Description

#### Detailed Description

... pointers

contained within the NDSMR database, representing medical files archived at all of the various local networks **connected** within the extended health network. As mentioned above, the data structure of the pointers allows the nature of the information to which they point to be **determined**, either directly from the data structure

26

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LZ...q-Tpd Pqpp @-q; -qqoq aaaTqm aspo aqq UT JTasqT

86110/86V:)/13d Z91tt,/66 OM

unique **identificher** and a dynamically updated list of pointers to relevant medical information located at remote locations. In such...

...6C (minus the Links To Other Biological

Data). Upon logging in to the NDSMR system with a **Smart Card** (or **two**), the medical information stored on the patient's Smart Card A patient's Smart Card, or alternatively any other form of **portable computer** readable storage medium, may also be used to store and maintain all or a portion of the...the whole of the patients, medical information between database records and patient Smart Cards or other such **portable computer** readable storage media, and are included within the scope of this invention.

The above description of a...

11/5,K/15 (Item 6 from file: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00350187 \*\*Image available\*\*

#### IMPROVEMENTS IN OR RELATING TO ELECTRONIC WALLETS AMELIORATIONS CONCERNANT LES PORTEFEUILLES ELECTRONIQUES

Patent Applicant/Assignee:

AU-SYSTEM,

JONSTRoMER Ulf,

Inventor(s):

JONSTRoMER Ulf,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9632700 A1 19961017

Application: WO 96SE414 19960329 (PCT/WO SE9600414)

Priority Application: SE 951347 19950411

Designated States: JP NO US AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT

SE

Main International Patent Class: G07F-007/08

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 4333

English Abstract

An electronic transaction terminal, for use in the conduct of electronic financial transactions, comprises, in combination, a smart card and a communications module. The smart card (7) has money credits stored on it. The communications module is used for transferring electronic credits from the smart card (7) to a payee. The smart card (7) includes storage means for storing electronic credits and transfer means for adding, or removing electronic credits. The communications module includes actuation means for generating a signal for the transfer of electronic credits, routing means for generating an address to which said electronic signal should be addressed, a VDU for displaying data relating to a credit transfer, and a key pad for entering details of an electronic transfer. The electronic transaction terminal is adapted so that the payer remains in physical control of the smart card (7) at all times during the conduct of a transaction.

French Abstract

Terminal de transactions electroniques, concu pour realiser des transactions financieres par voie electronique, comprenant de maniere combinee une carte a memoire et un module de communication. La carte a memoire (7) renferme en memoire des credits monetaires. Le module de communication sert a transferer les credits par voie electronique de la carte a memoire (7) au beneficiaire. La carte a memoire (7) comporte un dispositif de memorisation pour memoriser les credits et un dispositif de transfert servant a ajouter ou retrancher des credits. Le module de communication comporte un dispositif d'execution produisant un signal pour le transfert des credits, un dispositif d'acheminement produisant une adresse a laquelle le signal electronique doit etre adresse, une unite de visualisation permettant d'afficher les donnees concernant le transfert de credits et un clavier permettant d'introduire les elements du transfert electronique. Le terminal de transaction electronique est concu de telle sorte que le payeur reste materiellement le detenteur de la carte a memoire (7) a tout moment de l'execution de la transaction.

Fulltext Availability:

Detailed Description

Detailed Description

... a telecommunications system which includes a mobile network. However, it is also possible to use a telephone **connected** directly ...incorporates a smart card reader, such as a payphone.

A principle advantage in the use of a **mobile telephone** is that such units frequently include a slot for insertion of a smart card. In normal use...

...acts as a SIM (subscriber information module), and 'S is used to identify a subscriber to a **mobile telephone** network. The SIM contains subscriber specific information, such as the subscriber's telephone account **identification** and the premium services which the subscriber is entitled to access. The present invention can be realised by combining the SIM function and electronic wallet function in a single **smart card**. Alternatively, **two** smart cards can be used, one functioning as an electronic wallet, and the other as a conventional...

11/5,K/16 (Item 7 Item File: 349)  
DIALOG(R) File 349:PCT FULLTEXT  
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00348344 \*\*Image available\*\*

**INTELLIGENT CARD READER HAVING EMULATION FEATURES**  
**LECTEUR DE CARTE INTELLIGENT A CARACTERISTIQUES D'EMULATION**  
Patent Applicant/Assignee:

CYBERMARK INC,

Inventor(s):

RENNER G Fred,  
JOHNSON Randall E,  
CHU-JENQ Caroline,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9630857 A1 19961003

Application: WO 96US3636 19960322 (PCT/WO US9603636)

Priority Application: US 95495 19950331

Designated States: AL AM AT AU AZ BB BG BR BY CA CH CN CZ DE DK EE ES FI GB  
GE HU IS JP KE KG KP KR KZ LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL  
PT RO RU SD SE SG SI SK TJ TM TR TT UA UG UZ VN KE LS MW SD SZ UG AM AZ  
BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Main International Patent Class: G06K-007/00

Publication Language: English

Fulltext Availability:

Detailed Description

Claims

Fulltext Word Count: 11477

#### English Abstract

An intelligent card reader is provided to replace existing magnetic stripe readers, bar code readers, and Wiegand effect readers (403) without the need for expensive retrofitting of computer systems which are coupled to the existing readers. The intelligent reader can replace the aforementioned readers and yet remain compatible with their existing interfaces (406) by emulating a magnetic card reader, a Wiegand effect reader, or a bar code reader (402). Moreover, the card reader can accept smart cards having different functions and/or software interfacing techniques (405), thus allowing different types of smart cards to be used in the same reader. A reprogramming feature allows the unit to be easily reprogrammed to support new features and smart card types without rewiring or removing the unit.

#### French Abstract

Un lecteur de carte intelligent est prevu pour remplacer les lecteurs de bande magnetique existants, les lecteurs de codes barres, et les lecteurs a effet Wiegand (403) sans qu'il y ait besoin de modifications couteuses sur les systemes ordinateurs couples a des lecteurs existants. Le lecteur de cartes intelligent peut remplacer les lecteurs susmentionnes, tout en etant compatible avec les interfaces existantes (406), en emulant un lecteur de cartes magnetiques, un lecteur a effet de Wiegand ou un lecteur a codes barres (402). De plus, le lecteur de cartes peut accepter des cartes intelligentes ayant differentes fonctions et/ou differents systemes d'interface (405) avec des logiciels, ce qui permet d'utiliser differents types de cartes intelligentes dans le meme lecteur. Un systeme de reprogrammation permet a l'unite d'etre facilement reprogrammee pour pouvoir accepter de nouvelles fonctions et s'adapter a de nouvelles cartes intelligentes, sans modification des circuits et sans enlever l'unite.

Fulltext Availability:

Claims

#### Claim

... out by library patrons. FIG. 1B shows a conventional access control system which uses Wiegand effect cards to **verify** access to a locked door.

FIG. 1C shows a conventional cafeteria plan system using magnetic cards such...Vpp may be provided at the same voltage level (one of ordinary skill in the art will **recognize** that older smart cards often require different voltage levels while newer cards can operate at the same...

...microcontroller. Bi-directional buffer circuit 204 acts to convert the single I/O line 220 from the **smart card** into **two** separate unidirectional I/O lines on the microcontroller. A ground line (not shown) grounds one of the pins on smart card 215 in **common** with the microcontroller ground. Two of the 8 contact pads on the smart card are not used...214 is provided for emulating a bar code signal. One of ordinary skill in the art will **recognize** that preferably only one, and not all three, of these outputs is needed to accomplish the objects...wires WO and WI corresponding to the code "42318". One of ordinary skill in the art will **recognize** how to generate pulses according to a desired sequence using simple timing routines in software executing in...

...clock signal will be generated, but the clock and data channels will be generally in sequence with **each other**. Some cards may include more than ...a smart card must first know what type of smart card has been inserted in order to **determine** how to interact with the card. A cafeteria plan, for example, which needs to retrieve a student...

...need to account for such vendor-specific differences.

To overcome the aforementioned differences, the present invention contemplates **determining** what type of card has been inserted into the reader and, if the functions for that card...specific card routines for that type of card. On the other hand, if the card is not **recognized**, then in step 304 a message or other indication is generated to indicate that the inserted card...

...than directly coupling to various vendor functions. Generic card interface layer 401 thus provides functions which are **common** across different types of smart cards, such as a "create-file" function and a "retrieve-file" function...

...changed when a new type of card is supported.

ISO standard low-level card protocol 404 is **common** across smart cards, and provides the low-level support needed to transfer individual bits and bytes to...of a PC 210 through four lines. Reprogram control circuit 208 is preferably arranged so that the **connection** of a plug to interface port 209 changes the bootstrap mode of microcontroller 200, such that upon...a match occurs, unlocks lock 604. It should be noted that means other than

the Wiegand emulation **connection** may be used between ICR 601 and microprocessor 602, such as RS-232, etc. Use of the...can be used to purchase items from the machine.

One of ordinary skill in the art will **recognize** how control signals corresponding to the proper coin amount can be generated by microcontroller 700 for the...

...key and transmitting it to the smart card, performing corresponding operations on the smart card, and

d **verifying** that **both** the **smart**

**card** and the microcontroller arrive at the same key after decryption. A security

access module (SAM), implemented in...0 lines of microcontroller 700 depending on the type of vending machine interface to which it is **connected**. Alternatively, in step 906b the cost of the most expensive item

in the vending machine which could possibly be selected by the user is **determined** as the item value. Either approach (step 906a or 906b) may be used.

In step 907, a test is performed to **determine** whether the item value (either the selected value from step 906a or the maximum value from step ...

...and the card is ejected in step 914. One - 22 of ordinary skill in the art will **recognize** that many of the steps shown in FIG. 9 can be simplified or eliminated for the case...

...Optional PIN

keypad 734 may be provided in order to force a user to enter a personal **identification** number (PIN) to authorize transactions above a certain predetermined limit (for example, \$10). Finally, the user may...memory 733 may be extracted through various means, including having a maintenance person or machine restocking person **connect** PC 710 through reprogram control circuit jack 709, or through UART 707. This activity would be analogous...

...a public location such as a shopping mall, library, bank, or the like. Computer 1050 can be **connected** to a network such as a banking network to perform various transactions in conjunction with smart card...

...PC. In this manner, individual consumers may purchase an off-the-shelf intelligent card reader which can be **connected** to their PC at home. Various other configurations are possible, such as a "disk bay" configuration which...the like, in response to commands generated by microcontroller 1100. Controller 1161 may control these devices over **connections** 1170 which may comprise hardwired lines, incircuit lines (e.g., using RF control technology over existing electrical wiring), or even wirelessly using spread spectrum or other **wireless** means. After inserting smart card 1115, steps similar to those shown in FIG. 9 may...

...in step 1201, the card production agent (i.e., the person controlling the card initialization process) is **authenticated**, such as by entering a PIN and/or inserting a smart card having an access control code...

...be used to hold a list of the files and their locations in memory on the card. **Identification** data file 1304 may be used to store information pertaining to the particular card holder such as...

...like. Vendor card emulation data files 1305 may be used to hold access control codes, meal plan **identification** account numbers, library account information, and the like, in order to ...particular site (such as a college campus site or a company-wide site). Thus, it will be **recognized** that many variations are of course possible, the particular file structure being selected to be compatible with...

...input through a keyboard. This information could include personal information such as date of birth, address, student **identification** number, and the like, as well as a list of applications for which the card holder is...

Set	Items	Description
S1	4751	(PLURAL? OR MULTIPL? OR SEVERAL? OR DIFFERENT? OR SECOND OR 2ND OR TWO OR 2) (2N) (CHIPCARD? OR SMARTCARD? OR ICCARD? OR CARD? ?)
S2	845	(MUTUAL OR BIDIRECTION? OR PEER) (N) AUTHENTIC? OR KERBEROS
S3	760884	AUTHENTIC? OR VALIDIT? OR VERIFI?
S4	146	SIM() CARD? OR SIMCARD? OR SUBSCRIBER() IDENTITY() MODULE?
S5	7523146	APPLICATION? OR PROGRAM? OR SUBPROGRAM? OR APP OR APPS OR - BANKING
S6	11928	(CHIP OR SMART OR STORED() VALUE OR IC) () CARD? OR CHIPCARD? OR MONDEX OR ICCARD? OR SMARTCARD?
S7	750	(PAIR? OR COMBINE? OR LINKED OR JOINED OR VARIOUS) (2N) (CARD? ? OR CHIPCARD? OR SMARTCARD? OR ICCARD?)
S8	8	S1 AND S2
S9	0	S7 AND S2
S10	7	S3 AND S4 AND S5 AND S6
S11	1	S2 AND S4 AND S5
S12	2	S2 AND S4
S13	17	S3 AND S4 AND S5
S14	26	S8 OR S10 OR S11 OR S12 OR S13
S15	19	RD (unique items)
S16	10	S15 NOT PY>1999
File	8: Ei	Compendex(R) 1970-2004/Apr W4 (c) 2004 Elsevier Eng. Info. Inc.
File	35: Dissertation	Abs Online 1861-2004/Apr (c) 2004 ProQuest Info&Learning
File	202: Info. Sci. & Tech. Abs.	1966-2004/Feb 27 (c) 2004 EBSCO Publishing
File	65: Inside	Conferences 1993-2004/May W1 (c) 2004 BLDSC all rts. reserv.
File	2: INSPEC	1969-2004/Apr W4 (c) 2004 Institution of Electrical Engineers
File	94: JICST-EPlus	1985-2004/Apr W2 (c) 2004 Japan Science and Tech Corp (JST)
File	111: TGG Natl. Newspaper	Index(SM) 1979-2004/May 06 (c) 2004 The Gale Group
File	233: Internet & Personal	Comp. Abs. 1981-2003/Sep (c) 2003 EBSCO Pub.
File	6: NTIS	1964-2004/May W1 (c) 2004 NTIS, Intl Cpyrghrt All Rights Res
File	144: Pascal	1973-2004/Apr W4 (c) 2004 INIST/CNRS
File	434: SciSearch(R)	Cited Ref Sci 1974-1989/Dec (c) 1998 Inst for Sci Info
File	34: SciSearch(R)	Cited Ref Sci 1990-2004/Apr W4 (c) 2004 Inst for Sci Info
File	62: SPIN(R)	1975-2004/Mar W2 (c) 2004 American Institute of Physics

16/5/4 (Item 1 from file: 2)

DIALOG(R) File 2:INSPEC

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6522638 INSPEC Abstract Number: B2000-04-6120D-055, C2000-04-6130S-027

**Title: Classification and structure of certificates**

Author(s): Meister, G.

Author Affiliation: Giesecke & Devrient, Munich, Germany

Conference Title: Health Cards '97 p.216-22

Editor(s): van den Broek, L.; Sikkel, A.J.

Publisher: IOS Press, Amsterdam, Netherlands

Publication Date: 1997 Country of Publication: Netherlands xii+414

pp.

ISBN: 90 5199 379 X Material Identity Number: XX-2000-00382

Conference Title: Health Cards'97. Fourth International Congress

Conference Date: 12-14 Nov. 1997 Conference Location: Amsterdam, Netherlands

Language: English Document Type: Conference Paper (PA)

Treatment: Practical (P)

Abstract: Since smart cards with co-processors handling long-number arithmetic have become available, it is possible to perform the calculation of digital signatures and their verification inside the card in a reasonable time frame. In this paper, classes of certificates are presented which are linked to public-key certificates. These certificates may be structured according to either the X.509 standard or the new CD part 8 of the ISO/IEC series 7816 for IC cards. In its Annex A, BER (Basic Encoding Rules) TLV-encoded structures of a card-verifying certificate are described which can be interpreted by the card. They can be coded in two different ways: self-descriptive or non-self-descriptive. For implementation reasons, the BER TLV coding only supports occurrences of simple types to be distinguished in the corresponding tags. The question arises (and is answered in detail) as to why these different classes and structures are needed and in what contexts in the health care sector they are used. To give an example for the use of a card-verifying structured certificate, in the case of the **mutual authentication of two cards** using a public key scheme (e.g. a patient card and a professional card), a card-verifying public-key certificate would be appropriate. On the other hand, different classes of certificates are proposed and specified for various applications, e.g. the health care sector. A special attribute certificate \$the professional certificate - is already specified in this context to link the professional data to its entity's name. (0 Refs)

Subfile: B C

Descriptors: certification; code standards; coprocessors; encoding; health care; public key cryptography; smart cards

Identifiers: certificate classification; certificate structure; smart cards; coprocessors; long-number arithmetic; digital signature verification ; public-key certificates; X.509 standard; ISO/IEC series 7816; IC cards; Basic Encoding Rules; BER TLV coding; card-verifying certificate; self-descriptive coding; nonself-descriptive coding; tags; health care sector; **mutual authentication** ; patient card; professional card; attribute certificate; professional certificate

Class Codes: B6120D (Cryptography); B1265F (Microprocessors and microcomputers); C6130S (Data security); C5230 (Digital arithmetic methods ); C5130 (Microprocessor chips)

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Set	Items	Description
S1	409	(TWO OR BOTH OR DUPLICATE OR TWIN OR PAIR) (2N) ((SMART OR C-HIP OR IC) ()CARD OR SMARTCARD? OR ICCARD? OR CHIPCARD? OR MONDEX OR (SMART OR CHIP OR IC) ()CARD?)
S2	4003970	MUTUAL? OR RECIPROCA? OR COMMON? OR COMMUNAL? OR CONNECT? - OR CONJOINT? OR JOINT?
S3	1376628	AUTHENTICAT? OR CERTIFY? OR VERIF? OR DETERMIN? OR RECOGNI? OR JUDGE? OR VALIDAT? OR IDENTIF?
S4	900697	EACH (1N)OTHER? OR ONE(1N)ANOTHER?
S5	450226	(MOBILE OR PORTABLE OR CELLULAR OR CELL OR WIRELESS) (2W) (D-EVICE? OR CLIENT? OR NODE? OR TELECOMMUNICATION? OR COMPUTER? OR PHONE? OR TELEPHONE? OR TERMINAL) OR CELLPHONE? OR CELL()P-HONE? OR WIRELESS OR WIRE()LESS OR RADIO?
S6	4	S1 AND S2 AND S3 AND S4
S7	0	S6 AND S5
S8	2	S1 AND S2 AND S3 AND S5
S9	25	S1 AND S2 AND S3
S10	2	S9 AND S5
S11	25	S6 OR S8 OR S9 OR S10

File 347:JAPIO Oct 1976-2003/Jun(Updated 031006)

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File 350:Derwent WPIX 1963-2003/UD,UM &UP=200369

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11/5/2 (Item 2 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03693285 \*\*Image available\*\*  
ELECTRONIC EQUIPMENT USING IC CARD

PUB. NO.: 04-058385 [JP 4058385 A]  
PUBLISHED: February 25, 1992 (19920225)  
INVENTOR(s): UBUKAWA HISAKI  
APPLICANT(s): BROTHER IND LTD [000526] (A Japanese Company or Corporation),  
JP (Japan)  
APPL. NO.: 02-169169 [JP 90169169]  
FILED: June 27, 1990 (19900627)  
INTL CLASS: [5] G06K-017/00  
JAPIO CLASS: 45.3 (INFORMATION PROCESSING -- Input Output Units)  
JAPIO KEYWORD: R002 (LASERS); R131 (INFORMATION PROCESSING -- Microcomputers  
& Microprocessors)  
JOURNAL: Section: P, Section No. 1367, Vol. 16, No. 252, Pg. 71, June  
09, 1992 (19920609)

#### ABSTRACT

PURPOSE: To use IC cards different in a **connection** state of **recognition** terminals by earthing one of a pair of a card **recognition** terminals and **connecting** the other to a control part in the state of applying prescribed voltage.

CONSTITUTION: In the electronic equipment provided with a card **connection** part 82 and the control part, one of a pair of a card **recognition** terminals 80 is earthed, and the other is **connected** to the control part in the state of applying prescribed voltage. Namely, a **recognition** signal keeps an H level while the voltage is applied in the state that the IC card is not installed, but the voltage is escaped and the **recognition** signal becomes an L level when the IC card is installed on the **connection** part 82 and the **recognition** terminal on a card side is **connected** to the card **recognition** terminal 80 so that the control part can **recognize** the installation of the IC card. Thus, the **recognition** signal becomes the L level even when either of the **two** kinds of **IC cards** different in the **connection** state of the **recognition** terminal is installed, and the installation of the IC card is **recognized**.

11/5/3 (Item 3 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03203537 \*\*Image available\*\*  
TELEPHONE PAGING SYSTEM AND **PORTABLE** MEDIUM FOR **TELEPHONE** PAGING

PUB. NO.: 02-179037 [JP 2179037 A]  
PUBLISHED: July 12, 1990 (19900712)  
INVENTOR(s): WATANABE EIJI  
APPLICANT(s): METEoola SYST KK [000000] (A Japanese Company or Corporation),  
JP (Japan)  
JINKOU CHINOU KENKYUSHO KK [000000] (A Japanese Company or Corporation), JP (Japan)  
OGAWA HIROSHI [000000] (An Individual), JP (Japan)  
YAMADA TOMOO [000000] (An Individual), JP (Japan)  
WATANABE EIJI [000000] (An Individual), JP (Japan)  
APPL. NO.: 63-334650 [JP 88334650]  
FILED: December 28, 1988 (19881228)  
INTL CLASS: [5] H04B-007/26; H04M-001/00; H04M-003/42  
JAPIO CLASS: 44.2 (COMMUNICATION -- Transmission Systems); 36.4 (LABOR  
SAVING DEVICES -- Service Automation); 44.4 (COMMUNICATION -- Telephone)  
JAPIO KEYWORD: R011 (LIQUID CRYSTALS); R130 (ELECTRIC COMMUNICATIONS --  
Pocket Bell Paging Devices); R131 (INFORMATION PROCESSING --

Microcomputer & Microprocessors)  
JOURNAL: Section: E, Section No. 983, Vol. 14, No. 448, Pg. 161,  
September 26, 1990 (19900926)

ABSTRACT

PURPOSE: To call a specific party without manual intervention in a short time by controlling both caller and called telephone sets so as to form a speech line between the both when a telephone paging portable medium is loaded to the caller and called telephone sets.

CONSTITUTION: Telephone sets 1a, 1b are **connected** via a digital private branch of exchange (PBX) 2, and an IC card 3 as a telephone paging portable medium is loaded to attain the telephone paging system under the control of the IC card 3. The IC card 3 stores an **identification code** specific to a subscriber and a called party **identification code** being an object of call. The exchange 2 is provided with a database 23 registering each **identification code** or the like sent from the IC card 3 and uses the sent called party **identification code** to retrieve the database, sends the caller **identification code** through the wire or in a **radio wave** to the called telephone set, and when the IC card 3 for **both** the caller and called parties is loaded to the telephone sets 1a and 1b, a speech line is formed between the both.

11/5/4 (Item 4 from file: 347)  
DIALOG(R) File 347:JAPIO  
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02148268 \*\*Image available\*\*  
CERTIFICATION SYSTEM FOR INTEGRATED CARD SYSTEM

PUB. NO.: 62-065168 [JP 62065168 A]  
PUBLISHED: March 24, 1987 (19870324)  
INVENTOR(s): KAWANA SHIGEYUKI  
APPLICANT(s): CASIO COMPUT CO LTD [350750] (A Japanese Company or Corporation), JP (Japan)  
APPL. NO.: 60-204696 [JP 85204696]  
FILED: September 17, 1985 (19850917)  
INTL CLASS: [4] G06F-015/30; G06F-015/30; G07F-007/08  
JAPIO CLASS: 45.4 (INFORMATION PROCESSING -- Computer Applications); 29.4 (PRECISION INSTRUMENTS -- Business Machines)  
JAPIO KEYWORD: R087 (PRECISION MACHINES -- Automatic Banking)  
JOURNAL: Section: P, Section No. 608, Vol. 11, No. 260, Pg. 133,  
August 22, 1987 (19870822)

ABSTRACT

PURPOSE: To prevent previously a foul transaction with forgery of an integrated circuit IC card or a card terminal, by **certifying** the propriety of **both** the **IC card** and the card terminal.

CONSTITUTION: Intrinsic information and its ciphered information are previously stored in an IC card 11. A card terminal 12 decodes the ciphered intrinsic information. This deciphered information is collated with the intrinsic information stored previously in the card 11 at both sides of the card 11 and the terminal 12 respectively for **mutual** confirmation of propriety. Thus it is possible to prevent previously a foul transaction carried out with forgery of an IC card or a card terminal.

11/5/7 (Item 3 from file: 350)  
DIALOG(R) File 350:Derwent WPIX  
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013799189 \*\*Image available\*\*  
WPI Acc No: 2001-283401/200130  
XRPX Acc No: N01-202021  
Smart card connector for two subscriber identity module cards

disposed one over the other using top and bottom portions formed as one piece

Patent Assignee: AMPHENOL TUCHEL ELECTRONICS GMBH (AMPJ ); AMPHENOL TUCHEL ELECTRONICS (AMPJ )

Inventor: REICHARDT M

Number of Countries: 027 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1039406	A2	20000927	EP 2000106545	A	20000327	200130 B
DE 19913923	A1	20000928	DE 1013923	A	19990326	200130
JP 2000315534	A	20001114	JP 200085132	A	20000324	200130
US 6241557	B1	20010605	US 2000531520	A	20000321	200133

Priority Applications (No Type Date): DE 1013923 A 19990326

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 1039406 A2 E 8 G06K-007/00

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI

DE 19913923 A1 H01R-012/16

JP 2000315534 A 6 H01R-012/18

US 6241557 B1 H01R-024/00

Abstract (Basic): EP 1039406 A2

NOVELTY - A **connector** (10) comprises a housing (11) with top and bottom supporting portions (12,13) with contact springs (30,31) and a carrier (15) and the two portions can be formed as one piece preferably of a plastic material. The portions are spaced apart in order to form a card slot so that two cards (27,28) can be inserted with their contacts (29,290) respectively facing the contact elements (30,31) of the two portions.

USE - Connecting two smart cards in a connector.

ADVANTAGE - Minimum longitudinal and transverse dimensions of connector.

DESCRIPTION OF DRAWING(S) - The drawing is a schematic cross-sectional view of the **connector**

**Connector** (10)

Housing (11)

Portions (12,13)

Carrier (15)

Cards (27,28)

Contacts (29,290,30,31)

pp; 8 DwgNo 1/4

Title Terms: SMART; CARD; **CONNECT** ; TWO; SUBSCRIBER; **IDENTIFY** ; MODULE; CARD; DISPOSABLE; ONE; TOP; BOTTOM; PORTION; FORMING; ONE; PIECE

Derwent Class: T04; V04; W01

International Patent Class (Main): G06K-007/00; H01R-012/16; H01R-012/18; H01R-024/00

International Patent Class (Additional): G06K-007/01; G06K-017/00;

G07F-007/08; H01R-013/641

File Segment: EPI

11/5/8 (Item 4 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013789001 \*\*Image available\*\*

WPI Acc No: 2001-273212/200128

XRPX Acc No: N01-195177

**Integrated circuit card system includes interface controller which inputs generated test signal to IC card to determine type of card**

Patent Assignee: THOMSON LICENSING SA (CSFC )

Inventor: VAYL Y; WORRELL C W

Number of Countries: 094 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
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WO 200106443 A1 20010125 WO 2000US18893 A 20000712 200128 B  
 AU 200062093 A 20010205 AU 200062093 A 20000712 200128  
 MX 2002000550 A1 20030701 WO 2000US18893 A 20000712 200366  
 MX 2002550 A 20020115

Priority Applications (No Type Date): US 99143843 P 19990715

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200106443 A1 E 17 G06K-007/00

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA  
 CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP  
 KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT  
 RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
 IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

AU 200062093 A Based on patent WO 200106443

MX 2002000550 A1 G06K-007/00 Based on patent WO 200106443

Abstract (Basic): WO 200106443 A1

NOVELTY - Computer controlled device (104) has card reader (116) **connected** to microcontroller (112) which executes a card reading software or routine from memory (114). An interface controller (122) generates a test signal and inputs to IC card (102) to **determine** if it is international standards organization ISO/7816 card or NRSS card. Interface controller implements an interface (118) based on card type.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Interface provision method for IC cards;

(b) Computer controlled device

USE - For supporting **two** different standard **IC cards** such as ISO/7816 and NRSS cards, smart card, access card, memory card using single IC card **connector** for consumer electronics systems, Pay TV systems, cable television, terrestrial television and satellite television receivers.

ADVANTAGE - Since single **connector** supports both card type so that additional **connectors** are not required. Also implementation of correct interface for the specific card type is achieved.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of IC card system.

IC card (102)

Computer controlled device (104)

Microcontroller (112)

Memory (114)

Card reader (116)

Interface (118)

Interface controller (122)

pp; 17 DwgNo 1/3

Title Terms: INTEGRATE; CIRCUIT; CARD; SYSTEM; INTERFACE; CONTROL; INPUT;

GENERATE; TEST; SIGNAL; IC; CARD; **DETERMINE** ; TYPE; CARD

Derwent Class: T01; T04; V04

International Patent Class (Main): G06K-007/00

File Segment: EPI

11/5/9 (Item 5 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013282226

WPI Acc No: 2000-454161/200040

XRPX Acc No: N00-338352

**Method of remotely administering smart cards over a communications network by storing the identity of a remote administrator on each card and connecting each card to its identified administrator when the card is used.**

Patent Assignee: NDS LTD (NDSN-N)

Inventor: KIPNIS S; MEIR R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2345232	A	20000628	GB 999359	A	19990426	200040 B

Priority Applications (No Type Date): IL 126552 A 19981013

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
GB 2345232	A	38	H04L-012/22	

Abstract (Basic): GB 2345232 A

NOVELTY - Each card stores the identity of an administrator and is **connected** to that administrator when used, e.g. using Internet Protocol. The communication may be through a proxy administrator local to the point where the card is used with the local administrator communicating with the **identified** administrator. The **identified** administrator **verifies** the right of access to secure information, e.g. using hash-coding techniques.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for

- (a) a secure access method
- (b) a method of remote administration f **two smart cards**
- (c) a remote administrator
- (d) a system for remote administration of a smart card
- (e) and a system for providing secure access in a communications network.

USE - Remote administration of smart cards.

ADVANTAGE - None given.

pp; 38 DwgNo 0/5

Title Terms: METHOD; REMOTE; ADMINISTER; SMART; CARD; COMMUNICATE; NETWORK; STORAGE; **IDENTIFY** ; REMOTE; ADMINISTER; CARD; **CONNECT** ; CARD; **IDENTIFY** ; ADMINISTER; CARD

Derwent Class: T01; T04; W01

International Patent Class (Main): H04L-012/22

International Patent Class (Additional): G07F-007/10; H04L-009/32;

H04L-029/06

File Segment: EPI

11/5/10 (Item 6 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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012608225 \*\*Image available\*\*

WPI Acc No: 1999-414329/199935

XRPX Acc No: N99-310422

Accounts settlement procedure using IC card in automatic vending machine  
- involves performing goods transaction after authentication of both  
IC cards

Patent Assignee: NIPPON CONLUX CO LTD (NICO-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11167664	A	19990622	JP 97334255	A	19971204	199935 B

Priority Applications (No Type Date): JP 97334255 A 19971204

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 11167664	A	13	G07F-007/08	

Abstract (Basic): JP 11167664 A

NOVELTY - An IC card (1) stores goods value information. A management IC card (2) is **connected** with the automatic transaction unit electrically. Goods transaction is performed after **authentication** of **both IC cards**.

USE - For account settlement in automatic vending machine using IC card.

ADVANTAGE - Leakage possibility of confidential information is low,

thus acquisition of confidential information or usage of incorrect IC card by communicative interception is realizable. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of automatic vending machine. (1,2) IC cards.

Dwg.1/8

Title Terms: ACCOUNT; SETTLE; PROCEDURE; IC; CARD; AUTOMATIC; VENDING; MACHINE; PERFORMANCE; GOODS; TRANSACTION; AFTER; AUTHENTICITY; IC; CARD  
Derwent Class: T01; T05  
International Patent Class (Main): G07F-007/08  
International Patent Class (Additional): G06F-017/60; G06F-019/00; G06K-017/00; G07D-009/00  
File Segment: EPI

11/5/11 (Item 7 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011946301 \*\*Image available\*\*  
WPI Acc No: 1998-363211/199831  
XRPX Acc No: N98-283588

**Smart card control appts. with two smart card control elements - has second control element for receiving low-level commands and convey them to smart card connected to smart card connector**

Patent Assignee: NOKIA MOBILE PHONES LTD (OYNO )

Inventor: EROLA M; HALMINEN H; HONKANEN J

Number of Countries: 082 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9827767	A1	19980625	WO 97FI789	A	19971216	199831 B
FI 9605071	A	19980618	FI 965071	A	19961217	199838
AU 9853990	A	19980715	AU 9853990	A	19971216	199846
FI 104223	B1	19991130	FI 965071	A	19961217	200003
EP 976273	A1	20000202	EP 97947738	A	19971216	200011
			WO 97FI789	A	19971216	
CN 1245620	A	20000223	CN 97181695	A	19971216	200028
US 6092133	A	20000718	US 97959315	A	19971028	200037
AU 733031	B	20010503	AU 9853990	A	19971216	200129
JP 2001508253	W	20010619	WO 97FI789	A	19971216	200140
			JP 98527366	A	19971216	
RU 2200973	C2	20030320	WO 97FI789	A	19971216	200330
			RU 99115885	A	19971216	

Priority Applications (No Type Date): FI 965071 A 19961217

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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WO 9827767	A1	E	32 H04Q-007/32	
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Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

FI 9605071	A		H04Q-007/32	
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AU 9853990	A			Based on patent WO 9827767
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FI 104223	B1		H04Q-007/32	Previous Publ. patent FI 9605071
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EP 976273	A1	E		Based on patent WO 9827767
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Designated States (Regional): CH DE FR GB IT LI NL SE

CN 1245620	A		H04Q-007/32	
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US 6092133	A		H04M-011/00	
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AU 733031	B		H04Q-007/32	Previous Publ. patent AU 9853990
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Based on patent WO 9827767

JP 2001508253	W	36	H04M-001/675	Based on patent WO 9827767
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RU 2200973	C2		G06F-017/60	Based on patent WO 9827767
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Abstract (Basic): WO 9827767 A

The appts. includes a first smart card control element (4) and an

element (16) for functionally **connecting** a smart card to the appts. It further includes a second smart card control element (10). The first smart card control element is arranged to receive high-level control commands according to a predetermined selection and to control a smart card (2) which is **connected** to the smart card **connector** (16), in compliance with a predetermined low-level command sequence **determined** by the control command in question.

The second smart card control element (10) is arranged to receive low-level commands and to convey them to the smart card (2) **connected** to the smart card **connector**. The smart card (2) **connected** to the smart card **connector** is reserved for one smart card control element at a time.

ADVANTAGE - External appts. can manipulate information on smart card using low-level commands for smart card. Internal or external element in system can manipulate smart card information with low-level commands without interference from other elements in system.

Dwg.5/9

Title Terms: SMART; CARD; CONTROL; APPARATUS; TWO; SMART; CARD; CONTROL; ELEMENT; SECOND; CONTROL; ELEMENT; RECEIVE; LOW; LEVEL; COMMAND; CONVEY; SMART; CARD; **CONNECT**; SMART; CARD; **CONNECT**

Derwent Class: T01; T04; W01

International Patent Class (Main): G06F-017/60; H04M-001/675; H04M-011/00; H04Q-007/32

International Patent Class (Additional): G06F-003/06; G06F-003/08; G06F-009/445; G06F-019/00; G06K-005/00; G06K-017/00; G07F-007/08; G07F-007/10; H04Q-007/38

File Segment: EPI

11/5/13 (Item 9 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011684984 \*\*Image available\*\*

WPI Acc No: 1998-101894/199810

XRPX Acc No: N98-081644

**Chip card with contact zone esp chip card module for e.g. identification cards for public telephone system - has conductive layer arranged on contact zone and having different colouring than contacts**

Patent Assignee: SIEMENS AG (SIEI )

Inventor: HEITZER J; HOUDEAU D; HUBER M; STAMPKA P

Number of Countries: 025 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19630049	A1	19980129	DE 1030049	A	19960725	199810 B
WO 9805000	A1	19980205	WO 97DE1541	A	19970722	199812

Priority Applications (No Type Date): DE 1030049 A 19960725

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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DE 19630049	A1	6	G06K-019/077	
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WO 9805000	A1 G	21	G06K-019/077	
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Designated States (National): BR CN JP KR MX RU UA US

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Abstract (Basic): DE 19630049 A

The chip card has a card carrier (3) containing an integrated circuit. On at least one of the main surfaces of the carrier (3) is a contact zone (5). The zone has several metallic contacts spaced apart from **each other**. The contacts are electrically **connected** to the integrated circuit. The metallic contacts are at least partly provided with an electrically conductive layer (11).

The layer is arranged on the contact zone without making a short circuit with the contacts. The conductive layer is a different colour from the contacts. To manufacture the chip card, the contact zone is made first. An electrically conductive layer is then applied to the



010950650 \*\*Image available\*\*

WPI Acc No: 1996-447600/199645

XRPX Acc No: N96-377201

**Data recorder for integrated-circuit card transmission protocol - has interface appts. that enables connection or disconnection of integrated circuit card and data processor through transmission-line connector when processor sends activating or non-activating instruction, respectively**

Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU )

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 8221527	A	19960830	JP 9524131	A	19950213	199645 B

Priority Applications (No Type Date): JP 9524131 A 19950213

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 8221527	A	13	G06K-017/00	

Abstract (Basic): JP 8221527 A

The appts. uses an integrated-circuit card (1) that is **connected** electrically to an interface appts. (3), to store data. When a data processor (2) which is **connected** to the interface appts. by a full-duplex asynchronous method, sends an activating instruction of the IC card to the interface appts., the card is **connected** directly to the processor through a transmission-line **connector** (11). Data transfer is then performed.

Transmission of serial data between the processor and interface appts. is performed after data transfer between the former and the IC card is interrupted based on the stop-state **determined** by a check unit (10). When the processor sends a non-activating instruction, data transfer is stopped.

**ADVANTAGE** - Can perform switching of clock rate according to International Standard Organisation criteria, even during **IC card** activation thus, **two** or more **IC cards** can be accommodated.

Dwg.1/9

Title Terms: DATA; RECORD; INTEGRATE; CIRCUIT; CARD; TRANSMISSION; PROTOCOL ; INTERFACE; APPARATUS; ENABLE; **CONNECT** ; DISCONNECT; INTEGRATE; CIRCUIT ; CARD; DATA; PROCESSOR; THROUGH; TRANSMISSION; LINE; **CONNECT** ; PROCESSOR; SEND; ACTIVATE; NON; ACTIVATE; INSTRUCTION; RESPECTIVE

Derwent Class: T01; T04

International Patent Class (Main): G06K-017/00

International Patent Class (Additional): G06F-013/38

File Segment: EPI

11/5/16 (Item 12 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010525121 \*\*Image available\*\*

WPI Acc No: 1996-022074/199603

XRPX Acc No: N96-018328

**Smart card transaction process - stores provisional transaction data in non-volatile memory awaiting verification by information system.**

Patent Assignee: GEMPLUS (GEMP-N); GEMPLUS CARD INT SA (GEMP-N); GEMPLUS SCA (GEMP-N)

Inventor: PARADINAS P; VANDEWALLE J

Number of Countries: 008 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 686947	A1	19951213	EP 95401269	A	19950531	199603 B
FR 2720848	A1	19951208	FR 946858	A	19940603	199605
JP 8063531	A	19960308	JP 95161503	A	19950605	199620
EP 686947	B1	19970924	EP 95401269	A	19950531	199743
DE 69500751	E	19971030	DE 600751	A	19950531	199749

			EP 95401269	A	19950531	
ES 2110818	T3	19980216	EP 95401269	A	19950531	199813
US 5796831	A	19980818	US 95455279	A	19950531	199840

Priority Applications (No Type Date): FR 946858 A 19940603

Cited Patents: EP 172670; WO 8902140; WO 9308545

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 686947	A1	F	8	G07F-007/08	
Designated States (Regional): DE ES FR GB IT NL					
JP 8063531	A		8	G06F-019/00	
EP 686947	B1	F	10	G07F-007/08	
Designated States (Regional): DE ES FR GB IT NL					
DE 69500751	E			G07F-007/08	Based on patent EP 686947
ES 2110818	T3			G07F-007/08	Based on patent EP 686947
FR 2720848	A1			G07F-007/10	
US 5796831	A			H04L-009/00	

Abstract (Basic): EP 686947 A

The process relates to problems which can arise when two smart cards are connected simultaneously to a card reader and the central processing system. Transaction data is stored provisionally in non-volatile memory within the smart cards and each card sends a message to the card reader that the transaction data is prepared. The reader receiving these messages from the two cards verifies the transaction then sends a message to each card that the transaction can proceed.

In this way the transaction is **verified** and proceeds without risk of fraud or failure due to faults in the processing system.

USE/ADVANTAGE - **Verification** of cash transactions between smart cards with reduced risk of error or fraud.

Dwg.2/4

Title Terms: SMART; CARD; TRANSACTION; PROCESS; STORAGE; PROVISIONAL;  
TRANSACTION; DATA; NON; VOLATILE; MEMORY; AWAIT; **VERIFICATION** ;  
INFORMATION; SYSTEM

Derwent Class: T05

International Patent Class (Main): G06F-019/00; G07F-007/08; G07F-007/10;  
H04L-009/00

International Patent Class (Additional): G06F-005/22; G06F-007/04;  
G06F-013/42; G06K-007/06; G06K-017/00; G06K-019/07; G07D-007/00

File Segment: EPI

11/5/17 (Item 13 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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010013009 \*\*Image available\*\*

WPI Acc No: 1994-280720/199435

XRPX Acc No: N94-221269

**Chip card for access to telecommunication system - contains processor and memory for storing data and routines for establishing connections between subscribers, and processing of GSM or ISDN data**

Patent Assignee: ALCATEL NV (COGE ); ALCATEL SEL AG (COGE ); ALCATEL (COGE )

Inventor: TURBAN K A; TURBAN K

Number of Countries: 014 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4307122	A1	19940908	DE 4307122	A	19930306	199435 B
EP 615210	A2	19940914	EP 94103205	A	19940303	199435
AU 9455143	A	19940908	AU 9455143	A	19940216	199437
JP 7049930	A	19950221	JP 9436116	A	19940307	199517
EP 615210	A3	19950927	EP 94103205	A	19940303	199615
AU 668454	B	19960502	AU 9455143	A	19940216	199625
US 5586166	A	19961217	US 94202274	A	19940225	199705
			US 95516896	A	19950818	

EP 615210	B1	2000010	EP 94103205	A	19940303	200006
DE 59409043	G	20000210	DE 509043	A	19940303	200015
			EP 94103205	A	19940303	
ES 2140474	T3	20000301	EP 94103205	A	19940303	200018

Priority Applications (No Type Date): DE 4307122 A 19930306

Cited Patents: 4.Jnl.Ref; EP 513507; FR 2661762; JP 2270424

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 4307122	A1		5	G06K-019/07	
EP 615210	B1	G		G06K-019/073	
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
DE 59409043	G			G06K-019/073	Based on patent EP 615210
ES 2140474	T3			G06K-019/073	Based on patent EP 615210
EP 615210	A2	G	6	G06K-019/073	
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
JP 7049930	A		4	G06K-019/00	
AU 668454	B			H04L-009/32	Previous Publ. patent AU 9455143
US 5586166	A		7	H04M-001/64	Cont of application US 94202274
AU 9455143	A			H04L-009/32	
EP 615210	A3			G06K-019/07	

Abstract (Basic): DE 4307122 A

The chip card consists of a processor and a memory. The memory stores received data and macro instructions relating to the system protocol. The system has a network (NV) that **connects** with a number of telecommunication terminals (ABCD).

A subscriber (TLN1) enters his card to gain access to the system. Communication links may be established with other users. The card contains the necessary software to **identify** the communication protocol in use.

ADVANTAGE - Simplifies access between users. Functionality of end appts. is independent of end appts. itself.

Dwg.1/1-

Title Terms: CHIP; CARD; ACCESS; TELECOMMUNICATION; SYSTEM; CONTAIN; PROCESSOR; MEMORY; STORAGE; DATA; ROUTINE; ESTABLISH; **CONNECT**; SUBSCRIBER; PROCESS; ISDN; DATA

Derwent Class: T04; W01

International Patent Class (Main): G06K-019/00; G06K-019/07; G06K-019/073; H04L-009/32; H04M-001/64

International Patent Class (Additional): H04L-009/00; H04L-029/06; H04L-029/12; H04M-001/00; H04M-003/42; H04M-011/00; H04M-015/00; H04M-017/02; H04Q-007/04

File Segment: EPI

11/5/18 (Item 14 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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009595932 \*\*Image available\*\*

WPI Acc No: 1993-289478/199337

XRPX Acc No: N93-222638

**Computation process between IC card and terminal - provides computation check without direct transmission between units to protect access to coding data to prevent unauthorised access**

Patent Assignee: MITSUBISHI DENKI KK (MITO )

Inventor: OHNO H

Number of Countries: 003 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 4306819	A1	19930909	DE 4306819	A	19930304	199337 B
FR 2689264	A1	19931001	FR 932604	A	19930305	199348
US 5355413	A	19941011	US 9324319	A	19930301	199440
DE 4306819	C2	19960822	DE 4306819	A	19930304	199638

Priority Applications (No Type Date): JP 9249830 A 19920306

The contact arrangement has a chip card reader adapted with a card holder, pref. a SIM card holder, to enable a SIM card to be read by it.

The card holder has the shape of a chip card and an aperture into which a SIM card can be inserted. The SIM card is held in the aperture by an adhesive foil.

USE/ADVANTAGE - For contacting chip cards and SIM cards of different dimensions pref. for cards with same contact layouts. Arrangement can be used either for chip cards or SIM cards or can be easily adapted for SIM cards.

Dwg.1/16

Title Terms: CONTACT; ARRANGE; STANDARD; CHIP; CARD; CARD; CHIP; CARD; READ  
; ADAPT; SUBSCRIBER; **IDENTIFY** ; MODULE; CARD  
Derwent Class: T01; T04; V04  
International Patent Class (Main): G06K-007/015; G06K-017/00  
International Patent Class (Additional): G06K-007/01; G06K-007/06;  
G06K-013/08; H01R-023/68; H01R-033/74  
File Segment: EPI

11/5/20 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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008475995 \*\*Image available\*\*

WPI Acc No: 1990-362995/199049

XPX Acc No: N90-276988

**Testing appts. for terminals communicating with chip cards - uses common secret code and algorithm to compare authentication codes generated by both terminal and card**

Patent Assignee: SIEMENS NIXDORF INFORM AG (SIEI ); SIEMENS AG (SIEI )

Inventor: KRUSE D

Number of Countries: 012 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 400441	A	19901205	EP 90901096	A	19900521	199049 B
US 5208447	A	19930504	US 90527439	A	19900523	199319
EP 400441	B1	19940727	EP 90109600	A	19900521	199429
DE 59006559	G	19940901	DE 506559	A	19900521	199434
			EP 90109600	A	19900521	
ES 2057264	T3	19941016	EP 90109600	A	19900521	199442

Priority Applications (No Type Date): DE 3917540 A 19890530

Cited Patents: A3...9136; EP 138386; EP 281058; EP 29894; FR 2600188; GB 2144564; NoSR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 400441	A				
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Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE

US 5208447	A		4	G06K-005/00	
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EP 400441	B1 G		5	G07F-007/10	
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Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE

DE 59006559	G			G07F-007/10	Based on patent EP 400441
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ES 2057264	T3			G07F-007/10	Based on patent EP 400441
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Abstract (Basic): EP 400441 A

An authentication code is generated in the card (CHK) and terminal (KT) from **identification** data (KEN) stored in the chip card and transferred into the terminal and from action keys (SK) using a background algorithm (fE). The authentication code (MACo) generated in the chip card is transferred to the terminal and compared with that (MACT) generated in the terminal. The terminal shows **identification** data if the check codes are identical.

USE/ADVANTAGE - For rapid, simple testing of a terminal which communicates with a chip card using a **common** secret code, an algorithm and an action key derived from a **common** random number. (4pp Dwg.No.1/1)

Title Terms: TEST; APPARATUS; TERMINAL; COMMUNICATE; CHIP; CARD; **COMMON** ;

SECRET; CODE; ALGORITHM; COMPARE; AUTHENTICITY; CODE; GENERATE; TERMINAL;  
CARD

Derwent Class: T01; T04; T05

International Patent Class (Main): G06K-005/00; G07F-007/10

File Segment: EPI

11/5/21 (Item 17 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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008231070 \*\*Image available\*\*

WPI Acc No: 1990-118071/199016

XRPX Acc No: N90-091522

**Portable integrated circuit card - has two types of access codes which both enable access to common data area, but only one gives access to specific application files**

Patent Assignee: TOSHIBA KK (TOKE )

Inventor: IIJIMA Y

Number of Countries: 003 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2635891	A	19900302	FR 8911247	A	19890825	199016 B
US 4985615	A	19910115	US 89397200	A	19890823	199106
KR 9507895	B1	19950721	KR 8912218	A	19890826	199716

Priority Applications (No Type Date): JP 88211832 A 19880826

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 9507895	B1		G06K-019/07	

Abstract (Basic): FR 2635891 A

The **smart card** (CI) has **two** access codes. The first is used to give a valid/invalid decision regarding access to a **common** data file and a collection of application program files. The second code also gives access to the **common** data file, but additionally, to another program area.

The card is divided into basic sections: a read/write section (11) a section (12) which sets up and classifies the Personal **Identification** Number (PIN), a code/ decode section (13) and a supervisor (14) which manages these basic functions.

ADVANTAGE - Security between applications is guaranteed. (30pp  
Dwg.No.1/12

Title Terms: PORTABLE; INTEGRATE; CIRCUIT; CARD; TWO; TYPE; ACCESS; CODE; ENABLE; ACCESS; **COMMON** ; DATA; AREA; ONE; ACCESS; SPECIFIC; APPLY; FILE

Derwent Class: T01; T04

International Patent Class (Main): G06K-019/07

International Patent Class (Additional): G06K-019/07

File Segment: EPI

11/5/22 (Item 18 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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008015001 \*\*Image available\*\*

WPI Acc No: 1989-280113/198939

XRPX Acc No: N89-213979

**Contactless signal and power transmission device with oscillators - uses electronic control of two resonant circuits in quadrature for transmission from stationary to movable part**

Patent Assignee: ANGEWANDTE DIGITAL ELEKTRONIK (ANGE-N)

Inventor: HASS W; KREFT H D; MACKENTHUN H; KREFT H

Number of Countries: 007 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 334804	A	19890927	EP 89730081	A	19890322	198939 B